REMARKS

Claims 1-31 are pending in the present application. In the Office Action, claims 1-31 were rejected under 35 U.S.C. § 103(a) as allegedly being obvious over Angelo, et al. (U.S. Patent No. 5,850,559) in view of Klein (U.S. Patent No. 6,532,510). The Examiner's rejections are respectfully traversed.

The present invention is concerned with providing an interruptible and/or re-enterable system management mode. Thus, with regard to independent claim 1, Applicants describe and claim a programming code for execution while a computer system is in system management mode (SMM). The claimed programming code includes one or more instructions executable while the computer system is in SMM and at least one of an entry location for re-entering SMM substantially after the one or more instructions and an exit location for interrupting SMM substantially after the one or more instructions. The claimed programming code also includes one or more additional instructions substantially after the entry or exit location, the additional instructions being executable while the computer system is in SMM. With regard to independent claim 8 and 13, Applicants describe and claim executing one or more instructions of SMM code routine while the personal computer system is in SMM and exiting the SMM code at an exit location not at the end of the SMM code routine. With regard to independent claims 18 and 25, Applicants describe and claim entering SMM, loading an SMM code routine at an entry location other than a start of the SMM code routine, and executing one or more instructions of the SMM code routine while the personal computer system is in SMM, beginning at the entry location other than the start of the SMM code routine.

Angelo is directed to securely executing registered applications immediately prior to powering down or entering a low energy consumption mode. Accordingly, Angelo describes a

conventional SMM that may be initiated by a system management interrupt (SMI) that is generated in response to a request to remove power from the system or to enter the low power consumption mode. Initiating the SMM causes an SMI handler routine to be executed. The SMI handler routine executes all the registered applications. After all of the registered applications have been executed, the SMI handler transmits a shutdown command. However, as admitted by the Examiner on page 3 of the Office Action, Angelo does not describe or suggest either an exit location not at the end of the SMM code routine or an entry location other than a start of the SMM code routine, as set forth in independent claims 1, 8, 13, 18, and 25.

The Examiner thus relies upon Klein to remedy the admitted deficiencies of the primary reference. Klein teaches a computer system that processes system management interrupt requests from plural system management requesters. For example, a computer system 10 that is already in system management mode in response to a low priority system management interrupt request may be interrupted and a context may be saved to enable a processor 16 to continue executing a first system management interrupt handler routine after completing execution of a second system management interrupt handler routine 50. However, Klein does not teach or suggest an entry location other than a start of the SMM code routine. See Klein, col. 6, ll. 31-40 and Figure 2.

Furthermore, Klein teaches that a last instruction of the second system management interrupt handler routine 50 is a Return-from-SMM (RSM) instruction, which causes the processor 16 to de-assert an SMIACT signal and return the system management mode to an idle state 70. Thus, Applicants respectfully submit that Klein fails to teach or suggest an exit location not at the end of the SMM code routine. See Klein, col. 6, ll. 44-47 and Figure 2.

To establish a *prima facie* case of obviousness, the prior art reference (or references when combined) must teach or suggest all the claim limitations. *In re Royka*, 490 F.2d 981, 180

U.S.P.Q. 580 (CCPA 1974). As admitted by the Examiner, Angelo fails to describe or suggest either an exit location not at the end of the SMM code routine or an entry location other than a start of the SMM code routine. Furthermore, as discussed above, Klein also fails to describe or suggest either an exit location not at the end of the SMM code routine or an entry location other than a start of the SMM code routine. For at least this reason, Applicants respectfully submit that the Examiner has failed to make a prima facie case that claims 1-31 are obvious over Angelo in view of Klein.

Moreover, Applicants respectfully submit that both of the cited references appear to teach away from the present invention, as set forth claims 1-31. First, Angelo teaches that the SMI handler routine executes all the registered applications before transmitting the shutdown command. Thus, Angelo appears to teach away from an exit location not at the end of the SMM code routine. Second, Klein teaches that the last instruction of the second system management interrupt handler routine 50 should be a Return-from-SMM (RSM) instruction. Thus, Klein also appears to teach away from an exit location not at the end of the SMM code routine. It is by now well established that teaching away by the prior art constitutes *prima facie* evidence that the claimed invention is not obvious. *See, inter alia, In re Fine,* 5 U.S.P.Q.2d (BNA) 1596, 1599 (Fed. Cir. 1988); *In re Nielson*, 2 U.S.P.Q.2d (BNA) 1525, 1528 (Fed. Cir. 1987); *In re Hedges*, 228 U.S.P.Q. (BNA) 685, 687 (Fed. Cir. 1986).

For at least the aforementioned reasons, Applicants respectfully submit that claims 1-31 are not obvious over Angelo in view of Klein and request that the Examiner's rejections of these claims be withdrawn.

For the aforementioned reasons, it is respectfully submitted that all claims pending in the present application are in condition for allowance. The Examiner is invited to contact the

undersigned at (713) 934-4052 with any questions, comments or suggestions relating to the referenced patent application.

Respectfully submitted,

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